UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
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ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA GEORGIA 30303-8960

February 23, 2011

Dr. Rebecca S. Griffith, PMP
Chief, Planning Division
Jacksonville District
U.S. Army Corps of Engineers
P.O. Box 4970
Jacksonville, FL 32232-0019

Subject: Comments on the Final Integrated Project Implementation Report and the Final Environmental Impact Statement (FEIS) for the "C-111 Spreader Canal Western Project, To Restore Ecosystem Function in Taylor Slough and Florida Bay Areas, Central and Southern Florida Project, Comprehensive Everglades Restoration Plan (CERP), Everglades National Park, Miami - Dade County, Florida"
CEQ Number: 20110029, ERP Number: COE-E39078-FL

Dear Dr. Griffith,

Pursuant to Section 309 of the Clean Air Act (CAA) and Section 102(2)(c) of the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA) Region 4 has reviewed the combined Final Integrated Project Implementation Report and the Final Environmental Impact Statement (FEIS) for the C-111 Spreader Canal Western Project. This project is located in south Miami-Dade County and has been proposed to restore ecosystem function in Taylor Slough and Florida Bay within the Everglades National Park, the adjacent Southern Glades, the Model Lands, and other associated wetlands and estuarine systems.

EPA understands that this Comprehensive Everglades Restoration Plan (CERP) project, sponsored by the South Florida Water Management District (SFWMD), has changed from its original Restudy design and was divided into a Western and Eastern Project. The present Western Project primarily addresses changes in western flows through Taylor Slough to restore over 250,000 acres of wetlands/habitat and to moderate and stabilize salinities in Florida Bay. The Eastern Project will cover the remaining project area and ultimately include the backfilling of the C-111 Canal. EPA previously rated the Western Project Draft Environmental Impact Statement (DEIS) as an "LO" (Lack of Objections), and we expressed our support for the C-111 Spreader Canal Western Project in our letter to the Jacksonville District dated June 8, 2009. EPA

continues to believe that this project, as well as the related Eastern Project, will benefit the CERP sponsored ecological recovery of the Everglades and Florida Bay.

EPA understands that the groundbreaking for the first phase of the C-111 spreader canal restoration project was recently held on Tuesday, January 26, 2011, and will soon restore the historical freshwater flows necessary to recover the former productive levels of aquatic species, wading birds and wildlife in Florida Bay. The successful completion and operation of the first phase of this restoration project will create a 9-mile "hydraulic ridge" designed to shift water toward Taylor Slough, the intended freshwater entry point to Florida Bay. Wetlands in this area have had limited freshwater for many years (since the early 1960's), with a concurrent decreased productivity of prey species that support wading bird populations.

EPA has previously provided NEPA-related comments on this project in letters dated June 8, 2009 and August 12, 2009 (both are attached), and we appreciate the Jacksonville District's incorporation of our comments in the Final Integrated Project Implementation Report and the Final Environmental Impact Statement (FEIS). Our previous comments and follow-up responses are included below.

- EPA-1 (Water Quality) – As we previously commented in our August 12, 2009 letter, EPA appreciates the addition of a water quality improvements discussion to Section 7.8.2 and in the discussion of Alternative 2DShort. In the same letter we requested that water quality benefits provided directly by the project or indirectly (e.g., sponsor land acquisition-removal from farming and potential development) be added to the FEIS. This was primarily because a major component of CERP is for water quality improvement of the Everglades - not just water quantity improvements (rehydration). EPA understands that all CERP projects have a water quality component or will benefit water quality to some degree. The water quality discussion in Section 7.8.2 now includes a statement noting that the change in land use will result in improved water quality conditions. The same statement has been added to the discussion for Alternative 2D Short. However, the FEIS clarifies that the project is not targeting water quality improvement specifically, and any water quality benefits as a result of project implementation are to be considered "ancillary".
- EPA-2 (Correct figures) – As we previously requested, Figure E-2 has been recently re-worked to provide greater understanding of monitoring station locations, and to better align it with the information in Table E-1 and in the text. S176B and S100 have been changed throughout the document to reflect the correct names: S-200 and S-199 respectively.
- EPA-3 (Monitoring Plan) - We previously found the Project Monitoring Plan in the FEIS to be responsive to our comments on the DEIS. The full monitoring plan is detailed in Annex E of the FEIS. The ecological monitoring parameters will reportedly follow "known standards" to determine if the project is performing as envisioned.
- EPA-4 (Environmental Justice) – As we previously noted, EPA understands that no public EJ issues were raised at a recent public meeting or otherwise identified

during the NEPA process. EPA understands that there will be no environmental impacts that are "high, adverse, or disproportionate" to low income, minority, or tribal populations as a result of the proposed project.

- EPA-5 (Displacement of people or businesses) - At this time, EPA understands that the Jacksonville District is not aware of any residents or businesses that will be displaced by the proposed project.
- EPA-6 (Invasive Species) – EPA notes that a Vegetation Management Plan, including requirements for invasive species control, has been developed and is contained in Annex E.
- EPA-7 (Cumulative Impacts) – EPA notes that the Western project anticipates more water from other CERP projects. We understand that this analysis was included in the system-wide formulation contained in Section 5 of the PIR/EIS. Direct effects from other projects are not anticipated; only indirect effects.

Thank you for the opportunity to provide comments on this final report. We appreciate the responses in the FEIS to our concerns, and we recommend that any remaining issues should be addressed in the ROD. If you wish to discuss these comments or have any other questions, please contact me at (404) 562-9611 (mueller.heinz@epa.gov) or Paul Gagliano, P.E., of my staff at (404) 562-9373 (gagliano.paul@,epa.gov).

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Attachment:

EPA Review Comments (dated August 12, 2009) on the COE's "C-111 Spreader Canal Western Project Final Project Implementation Report and Environmental Impact Statement"; Everglades and Florida Bay; CEQ# 20090243; ERP# COE-E39078-FL

EPA Review Comments (dated June 8, 2009) on the COE's "C-111 Spreader Canal Western Project Draft Project Implementation Report and Environmental Impact Statement"; CEQ# 20090117; ERP# COE-E39078-FL

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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August 12, 2009

Ms. Alisa Zarbo
U.S. Army Corps of Engineers
Jacksonville District
Regulatory Division
Palm Beach Gardens Regulatory Office
4400 PGA Boulevard / Suite 500
Palm Beach Gardens, FL 33410

Subject: EPA Review of the COE's "C-111 Spreader Canal Western Project Final Project Implementation Report and Environmental Impact Statement"; Everglades and Florida Bay; CEQ# 20090243; ERP# COE-E39078-FL

Dear Ms. Zarbo:

Pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the U.S. Army Corps of Engineers' (COE) Final Environmental Impact Statement (FEIS) for the subject C-111 Spreader Canal (C-111 SC) Western Project. This Comprehensive Everglades Restoration Plan (CERP) project sponsored by the South Florida Water Management District (SFWMD) has changed from its original Restudy design and was divided into a Western and Eastern Project. The present Western Project primarily addresses changes in western flows through Taylor Slough to restore wetlands and to moderate/stabilize salinities in Florida Bay. The prospective Eastern Project is to cover the remaining project area and ultimately include the backfilling of the C-111 Canal. EPA has previously provided comments on the Draft EIS (DEIS) in a letter dated June 8, 2009.

As was the case with the DEIS, EPA has concurrently received a copy of the Final Environmental Assessment (FEA) on the "C-111 Spreader Canal Design Test", which will serve as a pilot study for the design of the Eastern Project. The Spreader Canal feature will not be implemented under the current C-111 SC Western Project but is expected to be a major component of the overall project. We continue to support such pilot studies and will defer to the COE on this demonstration without formal comment. However, we assume that the FEA is consistent with the objectives of the present FEIS and improves water quantity and quality in the project area.

We appreciate the COE's responses to our comments on the DEIS. These responses are found on page B-105 of Annex B in Volume 3, and a copy of our letter was provided on page B-57. We have concentrated our FEIS review on those responses. We offer the following final comments in support of the C-111 SC Western Project:

o EPA-1 (*Water Quality*) – We appreciate the water quality improvements to Section 7.8.2 and in the discussion of Alternative 2DShort regarding the expected water quality improvements due to the project. However, it is unclear why the 'EPA-1' response states that "...the project is not targeting water quality improvement...", given that a major component of CERP is the water quality improvement of the Everglades – not just water quantity improvements (rehydration) – in the overall restoration of the Everglades. All CERP projects should therefore have a water quality component or that benefits water quality at some capacity.

o EPA-3 (*Monitoring Plan*) – We find the Project Monitoring Plan in the FEIS to be responsive to our comments on the DEIS.

o EPA-4 (*Environmental Justice: EJ*) – We are pleased to understand from this response that no public EJ issues were raised at a recent public meeting or determined. We note from Section 5.6.4.2 that a stakeholders meeting took place in 2003. However, we also note that Section 5.6.4.2 in the DEIS was not modified in the FEIS. It is therefore unclear if these stakeholders included or represented potentially affected EJ groups (what public outreach was used to assemble stakeholders?), and if conditions have changed since 2003.

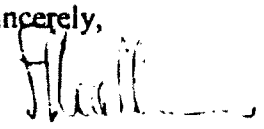
o EPA-6 (*Invasive Species*) – Although reduction and control of invasive species in the project areas to be rehydrated is not required, it would benefit the overall CERP goal of Everglades restoration. Such restoration should emphasize native wetland species as opposed to invasives.

o EPA-7 (*Cumulative Effects*) – The *Cumulative Effects* section (7.25: pg. 7-32) is much improved due to its disclosure of related CERP projects that indirectly affect the C-111 SC Western Project. Section 7.25.2 would have benefitted by inclusion of the relative merits of the present Western Project versus the proposed Eastern Project.

In summary, EPA continues to support the C-111 SC Western Project. We believe that this project and its proposed Eastern Project counterpart should benefit the CERP recovery of the Everglades and Florida Bay. We therefore recommend that implementation be expedited.

We appreciate the opportunity to review the FEIS. Should you have questions regarding these comments, feel free to contact Chris Hoberg of my staff for NEPA issues (404-562-9619 or hoberg.chris@epa.gov) and Eric Hughes of the EPA Water Protection Division (located in the Jacksonville District office) for technical issues (904/232-2464 or hughes.eric@epa.gov).

Sincerely,



Heinz J. Mueller, Chief
NEPA Program Office

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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June 8, 2009

Dr. Rebecca S. Griffith
Chief, Planning Division
U.S. Army Corps of Engineers
Jacksonville District
P.O. Box 4970
Jacksonville, FL 32232-0019

ATTN: Bradley Tarr

Subject: EPA Review of the COE's "C-111 Spreader Canal Western Project Draft Project Implementation Report and Environmental Impact Statement"; CEQ# 20090117; ERP# COE-E39078-FL

Dear Dr. Griffith:

Pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the U.S. Army Corps of Engineers' (COE) Draft Environmental Impact Statement (DEIS) for the subject C-111 Spreader Canal (C-111 SC) Western Project . This Comprehensive Everglades Restoration Plan (CERP) project sponsored by the South Florida Water Management District (SFWMD) has changed from its original Restudy design and was divided into a Western and Eastern Project. The present Western Project primarily addresses changes in western flows through Taylor Slough to restore wetlands and to moderate/stabilize salinities in Florida Bay. The prospective Eastern Project is to cover the remaining project area and ultimately include the backfilling of the C-111 Canal.

Concurrently with this DEIS, EPA also received a copy of the Draft Environmental Assessment (DEA) on the "C-111 Spreader Canal Design Test", which will serve as a pilot study for the design of the Eastern Project. The Spreader Canal feature will not be implemented under the current C-111 SC Western Project but is expected to be a major component of the overall project. We support such pilot studies and will defer the finalization of the DEA to the COE, since we assume that the resultant Final EA (FEA) will be consistent with the objectives of the present DEIS and improve water quantity and quality in the project area. Accordingly, we recommend that the development of the FEA remain within the context of the DEIS and apply our present comments on the DEIS as appropriate.

Background

The DEIS for the C-111 SC Western Project addresses the restoration of the ecological functions of Taylor Slough and Florida Bay in the Everglades National Park (ENP), for the benefit of Florida Bay, Southern Glades, Model Land and other wetland and estuarine areas. The Western Project is essential in the CERP restoration of downstream waters to Florida Bay through Taylor Slough using available waters. The project would function to regulate and improve the quantity, timing and distribution (QTD) of these flows and to increase hydroperiods. Several structural changes are proposed, including the creation of a nine-mile-long hydraulic ridge east of the ENP and a water control structure in the lower portion of C-111, as well as modifications of existing S-18C, S-20, S-20A and the C-110 Canal. The hydraulic ridge is to consist of the Frog Pond Retention Area and Aeroject Canal west of the C-111 Canal, and their pumping stations. This ridge is to prevent groundwater flows from entering the Canal from the ENP, so that the groundwater is retained in Taylor Slough for downstream conveyance. Also, the C-110 Canal east of the C-111 Canal will be filled periodically with 10 earthen plugs to promote downstream re-hydration flooding and sheet flow of its waters.

EPA supports the C-111 SC Western (and prospective Eastern) Project. We recognize the restoration benefits of wetland re-hydration and increased hydroperiods, and the diversion of flows to Florida Bay through Little Madera Bay and Joe Bay to moderate and stabilize salinity for their estuarine flora and fauna. Moreover, the project would re-hydrate the wetlands of the Model Lands enabling thousands of wetland acres to function better and become available for mitigation banking. Compared to the current C-111 Canal discharges into receiving waters, diversion of these canal waters should also improve downstream water quality by creating overland sheet flow. We also understand that project pumping will be controlled to accommodate a project constraint to maintain acceptable low water depths for the endangered Cape Sable Seaside Sparrow. Overall, this proposal would affect some 155,000 acres of uplands, wetlands and estuarine areas (pg. 2-2), and include 776 acres of private land acquisition by the SFWMD sponsor. Response times for re-hydration and salinity-moderation benefits could range from immediate for some sessile and opportunistic species to a slower rebound of up to 10 years for others that would eventually colonize the area or that have long life cycles.

Alternatives

The COE's Recommended Plan (=NEPA preferred alternative) proposed in the DEIS is Alternative 2D Short (2DS), which is a modification of the original Alternative 2D. Alternative 2DS proposes a shorter Aerojet Canal feature that is more compatible with the volume of water available. The original Alternative 2D was consequently renamed as Alternative 2D Long (2DL).

Overall, EPA believes that Alternative 2DS is a reasonable environmental and economic selection. Of the final array of alternatives (1C, 1D, 3D, 2DL, 2DS, 6D), it provides a high habitat unit benefit or "lift", second only to 6D. Alternative 2DS should

also reduce salinity swings in Barnes Sound by reducing freshwater flows through S-197, but increase flows to Florida Bay to moderate salinities there to more historic levels. From a cost perspective, start-up and maintenance costs of Alternative 2DS and 6D were each characterized by the COE as a "Best Buy"; however, 2DS would cost considerably less and provides better relative benefit per habitat unit, even though 6D would benefit more habitat units. Moreover, 2DS is more flexible than 6D as it allows for easier implementation of adaptive management to help resolve uncertainties. Specifically, only 6D would implement a large permanent structure to prevent groundwater flows into the C-111 Canal, which would have to be de-constructed if adaptive management monitoring determines a need. Alternative 6D would also not satisfy the important project constraint of accommodating low water levels for the Seaside Sparrow, while 2DS would regulate its pumping accordingly.

Comments & Suggestions

Beyond the notable overall project benefits outlined above, we offer a few technical and editorial comments to improve the Final EIS (FEIS). Regarding technical issues, we recommend the following for the COE's consideration:

* Water Quality – From a water quality perspective, we note that the project's generation of overland sheet flow should improve water quality when compared to current canal discharges into receiving water bodies. We are also pleased that a project objective is to moderate the hypersaline waters of Little Madera Bay, Joe Bay and Florida Bay to more historic levels associated with estuarine waters. Moreover, we note (pg. 7-14) that total phosphorus levels are predicted to be low (about 5 ppb, compared to the Settlement Agreement standard of 8 ppb) for Taylor Slough waters entering Florida Bay due to ongoing upstream efforts. Regarding chemical contaminants that may be released during the flooding of project areas and affecting water quality of downstream flows, the Frog Pond Detention Area may have the greatest potential for concern. However, page 7-27 indicates that "...scraping to remove the maximum practical amount of soil from the wetted surfaces of the FPDA [Frog Pond Detention Area] would be sufficiently protective of ecological receptors" and that "[a]ll other elements of Alternatives 1D, 2D Short and 2D Long are free of HTRW [hazardous, toxic and radioactive waste] and site contamination issues." In addition to these benefits, EPA requests additional FEIS discussion on any other water quality benefits provided by the project or that would incidentally result from the project (e.g., sponsor land acquisition, removing this land from farming and potential development).

* Monitoring – Although project monitoring is referenced in the main document (e.g. Section 5.10.3 and 8.2.2), it is fully discussed in Annex E. While EPA finds this monitoring plan to be adequate overall, we offer the following comments:

+ *Figure E-2*: This figure is confusing and should be clarified in the FEIS to mesh with the accompanying Table E-1 and the discussion. On Figure E-2, the proposed structure S176B should be renamed to S-200, which is the 225 cfs intake pump to the 590-acre water detention basin (since there is no outlet structure, we note that all water

pumped into the detention basin will seep into the surficial aquifer). Also, proposed S177B on Figure E-2 needs to be renamed to S199.

+ *Summary*: We suggest that the main document provide a short summary of the monitoring proposed for the project as well as related issues such as the ecological performance standards to be used to determine project success. Also, what is the process for implementing adaptive management for the project in terms of the timeframe required before a change is authorized and initiated?

* Environmental Justice (EJ) – Page 5-43 suggests that EJ populations would not be affected by the project and stated that "[s]takeholders meetings with the minority groups took place in 2003 to address concerns." However, these public concerns were not disclosed or referenced. Accordingly, it is difficult for the public to determine the absence of an EJ effect without such discussion. In addition, such 2003 outreach is now somewhat dated information and may have changed. We also note that page 6-14 indicates that no relocation assistance would be needed or required. The FEIS should more clearly indicate if any residents or businesses would be displaced by the project and, if so, the demographics of those people to be relocated.

* Invasive Species – Page 7-20 lists several non-native species such as *Melaleuca* that are present in the project area. The DEIS indicates (pg. 7-21) that "[a]ll of the alternatives include redistribution of freshwater into wetland communities that will retard the growth and spread of invasive, non-native plant species." While this may be true for certain species, certain invasives such as Brazilian Pepper would thrive in such environments. Similarly, *Melaleuca* was presumably intentionally introduced to south Florida many years ago to help convert wetlands to uplands. The FEIS should discuss if the project will attempt to control invasive species on the 776 acres of private lands that are to be purchased since these lands would become fallow and available for opportunistic invasive species.

* Cumulative Impacts – Cumulative impacts should discuss both negative and positive impacts. As a restoration project, the overall impact of CERP (and the present C-111 SC Western Project component) is positive. The discussion on page 7-32 should therefore be broadened in the FEIS to include the positive effects of other CERP projects relative to the subject C-111 SC Western Project. These include the prospective C-111 SC Eastern Project as well as the ongoing Modified Waters Delivery (MWD) Project and others intended to re-hydrate the Everglades and restore flows to Florida Bay.

Editorially, we suggest additional language for clarity in areas such as the following:

* Barnes Sound Water Quality – Page 5-38 states that "...supplemental data from the environmental evaluation suggests that Alternative 6D would cause substantial damage to Barnes Sound." However, the type and magnitude of this damage was not discussed or referenced. Based on Section 7, we note that such damage would be salinity related since 6D would still allow high flows through S-197 (pg. 7-16 and Table 7-2) and

discharges into Barnes Sound, which lowers ambient salinities at the outfall and impacts local marine inhabitants. We suggest that the said "damage" be briefly described (e.g., salinity reductions due to discharges) or that the Section 7 discussion be referenced.

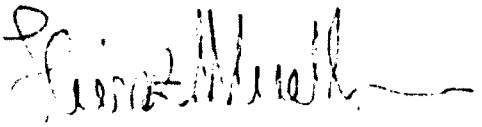
* Florida Bay Salinities – Page 5-45 states that "...the benefit analysis indicates there could be a decline in salinity conditions for the eastern portions of the Florida Bay as more water is redistributed to the western portion of the project area." We suggest that "a decline in salinity conditions" be defined parenthetically or replaced with what we assume is intended to mean "an increase in the hypersalinity conditions".

EPA DEIS Rating

We rate this DEIS as an "LO" (Lack of Objections). EPA supports the C-111 SC Western Project. We believe that this project and its prospective Eastern Project counterpart should benefit the CERP recovery of the Everglades and Florida Bay.

EPA appreciates the opportunity to review the DEIS. Should you have questions regarding these comments, feel free to contact Chris Hoberg of my staff for NEPA issues (404-562-9619 or hoberg.chris@epa.gov) and Eric Hughes of the EPA Water Protection Division (located in the Jacksonville District office) for technical issues (904/232-2464 or Eric.H.Hughes@usace.army).

Sincerely,



Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management